

2030 Transportation Plan

Board Workshop

May 2010

Background

- Overview of the update at the January 2010 PDC
- Identified process, needs, and document revision considerations
- PDC recommended Board workshop

Workshop Purpose

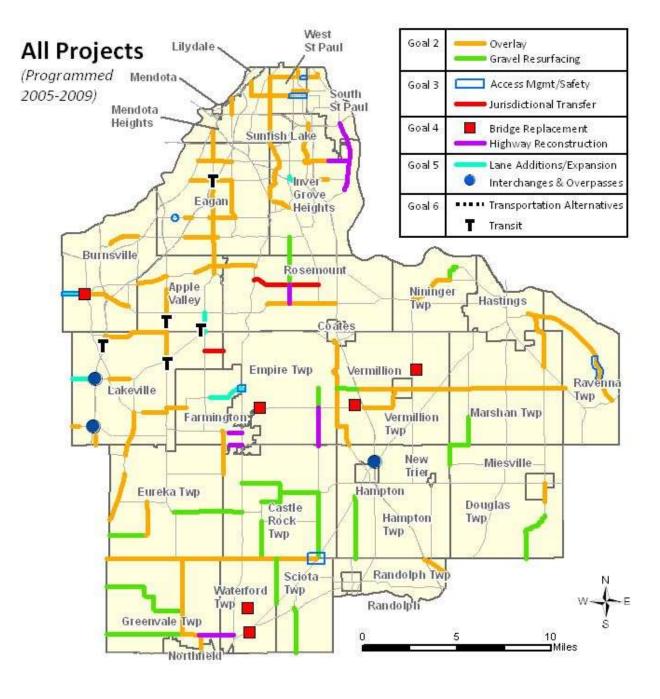
- CIP & Investment Focus by Plan Goal
 - What's Been Done Since 2004 Plan
 - Results of Last 5 Years Investment
 - Future Needs and Costs
 - Investment Strategy Options
- Future Workshop
 - Potential Policy and Strategy Changes

Transportation Plan Goals

- Limited Resources are Directed to the Highest Priority Needs of the Transportation System
- 2. Preservation of the Existing System
- 3. Management to Increase System Efficiency and Maximize Existing Highway Capacity
- 4. Replace Deficient Elements of the System
- Improvement and **Expansion** of Transportation Corridors
- 6. Develop Transportation Alternatives

Goal 1 - Resources





2005-2009 Projects by Goal

















CSAH 26 Inver Grove Heights





CSAH 56 (Concord Ave) Inver Grove Heights / S St Paul









CR 28 new alignment Eagan / Inver Grove Heights





CSAH 46/TH 52 Interchange Coates



CSAH 47 Overpass Hampton



CSAH 50/I-35 Interchange Lakeville



CSAH 60/I-35 Interchange Lakeville











Lakeville Kenrick Park-n-Ride



CIP Investments – Per Year

		Estimated CIP	Actual CIP Programmed
		Investments	Investments
	Goal	2005-2009	2005-2009
Goal 1	Resources	*	*
Goal 2	Preservation	\$ 3.8	\$ 4.2
Goal 3	Management	\$ 7.0	\$ 7.8
Goal 4	Replacement	\$ 4.2	\$ 12.4
Goal 5	Expansion	\$ 14.3	\$ 21.5
Goal 6	Alternatives	\$ 0.9	\$ 0.0**
	Other	\$ 0.0	\$ 2.0
	TOTAL	\$ 30.2	\$ 47.8

^{*} Investments included within estimates for other goals.

^{**}Alternatives identified through separate Cedar Ave. Transitway, RRA transit budget and Parks CIP for trails projects

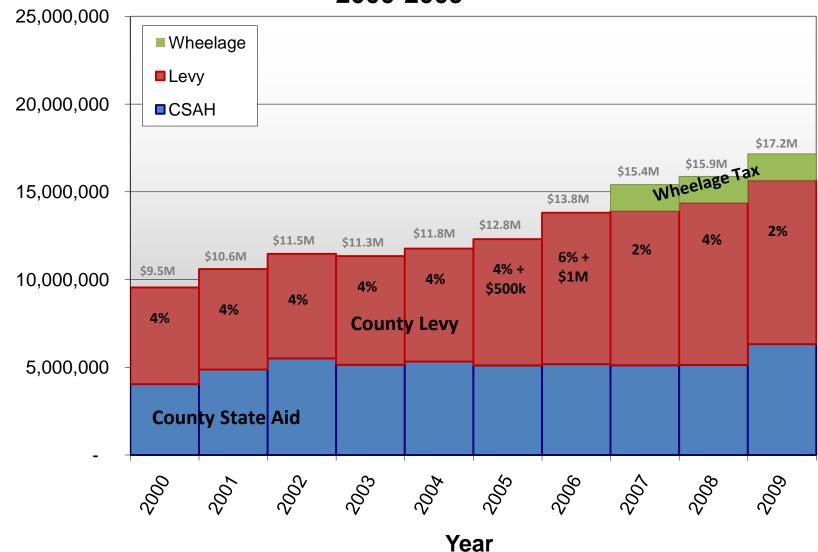
Goal 1: Resources

New/Additional Funding Sources (2004-2009)

- MVST Constitutional Amendment (2006)
- Wheelage Tax (2007)
- Chapter 152 (2008)
 - New Gas Tax
 - LMVST
 - Flexible Highway Account
- County Levy Increases
- State Project Funding

- Federal
 - Regional solicitation
 - Secure Cedar BRT funding
- Counties Transit
 Improvement Board
- State Turnback Funding
 - CSAH 56, CSAH 50
- Routes of Regional Significance

LOOKING BACK Transportation CIP Revenue Summary 2000-2009



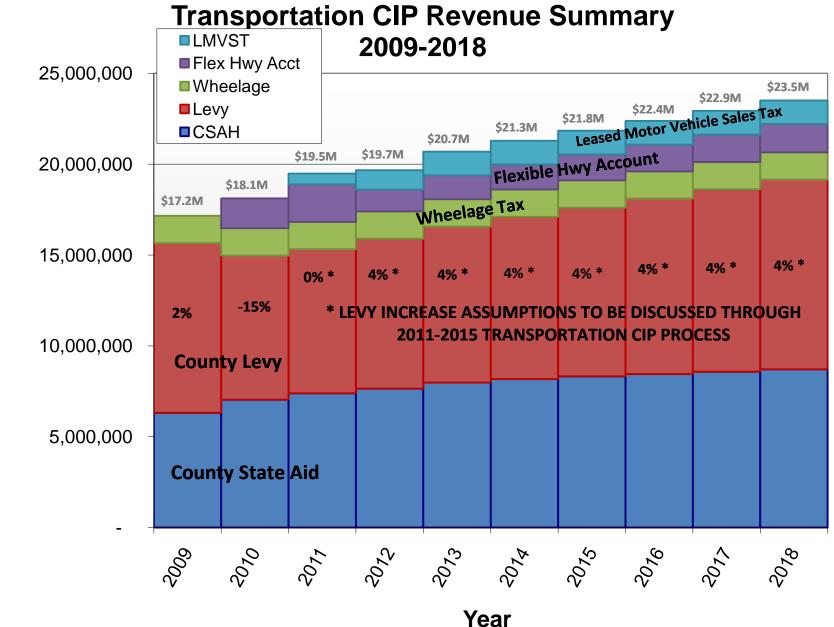
Dollars

Goal 1: Resources

Staff Resources, CIP, Operations

- Resources steady investments increasing
 - Transportation operating budget increased slightly, levy share reduced
 - Design engineering costs remained stable
 - Full time employee equivalents from 82 to 82
 - Consultants for peaks and complex projects
- Staff sharing examples
 - Right of Way Mapping / Permitting
 - Snowplowing
 - Construction / Traffic
 - Survey Office Assistance

LOOKING AHEAD



Goal 1: Resources

<u>Anticipated CIP General Revenues (2011-2015)</u>

County Funding/CPA	\$5.0M/\$4.9M
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Wheelage Tax \$1.7M

Gravel Tax \$0.2M

CSAH* \$10.0M

City Cost Participation \$7.0M

State Trunk Highway \$2.5M

State Bridge Bonds \$0.2M

Federal Aid \$5.0M

TOTAL \$31.6M/\$36.5M

^{*}Includes Flexible Highway Account and Leased Motor Vehicle Sales Tax Revenues

Transportation Budget Concept

	CIP			Operating
CSAH 320 miles	CSAH Funds City Participation State Funds Federal Funds	Engineering Staff	Engineering	CSAH Funds
CR 120 miles	Levy (County Program Aid) Wheelage Tax Gravel Tax	Enginee	ing Staff	Wheelage Tax

Goal 1: Resources

Policy Items To Address (Next Workshop)

- Cost Share Policy
 - County participation for "regional roadways"
 - Transitways: streetscaping / landscaping
 - Coordination with development
 - Roundabout cost participation
 - Safety Improvements
 - Access closures, intersection lighting, turn lanes
 - Township cost participation



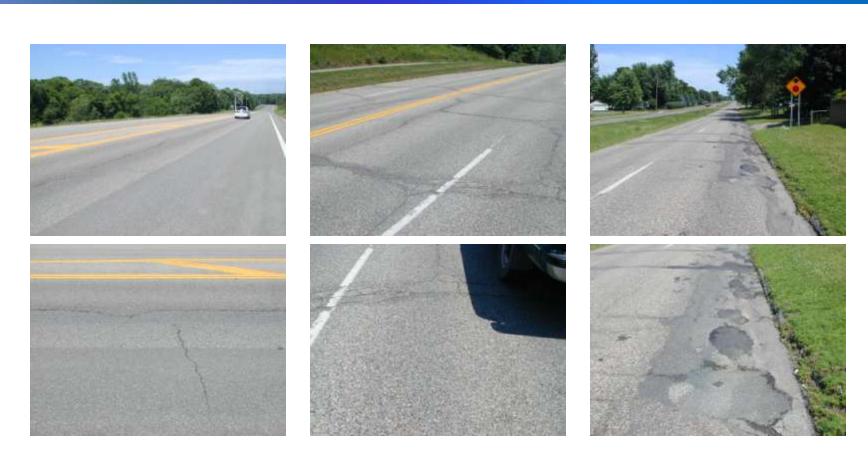


2005-2009 Projects by Goal

Investments Since Last Plan

- Overlays
 - Investment Increased From \$1.5M in 2003 to \$3.4M in 2009
 - PQI Results: Poor/Fair Reduced from 35% to 8%



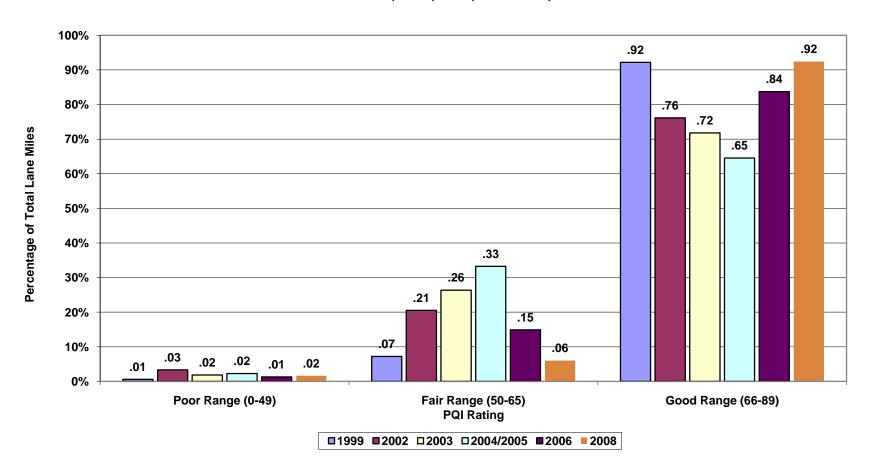


Good Rating On CSAH 33 (between 140th to CSAH 31)

Fair Rating On CSAH 26 (between Eagandale and I-35E) On CSAH 26 (between Cahill and CSAH 56)

Poor Rating

PAVEMENT QUALITY INDEX - 1999, 2002, 2003, 2004/2005, 2006 & 2008

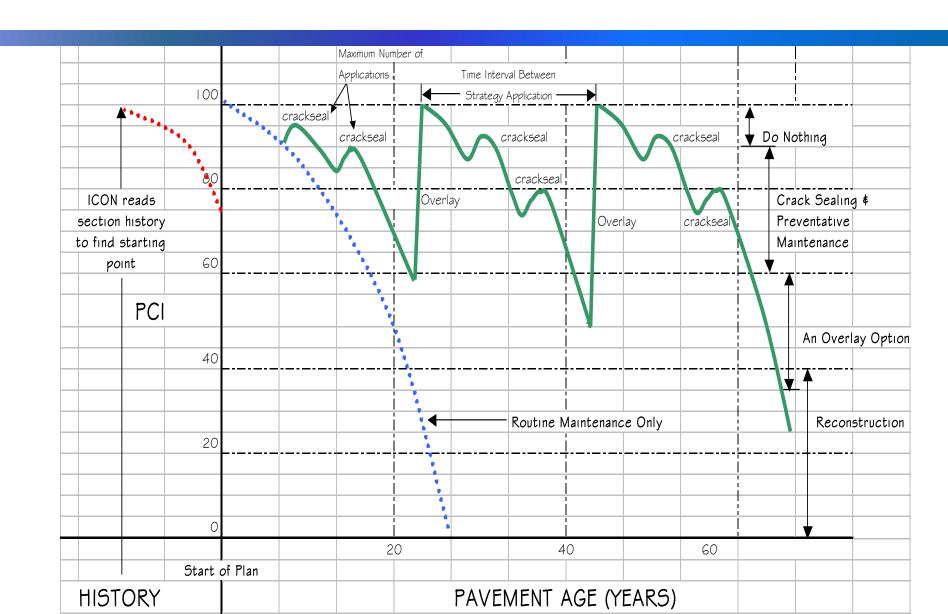


Pavement Quality

<u>Bituminous Surface – Performance Measure</u>

Pavement Quality Index (PQI)

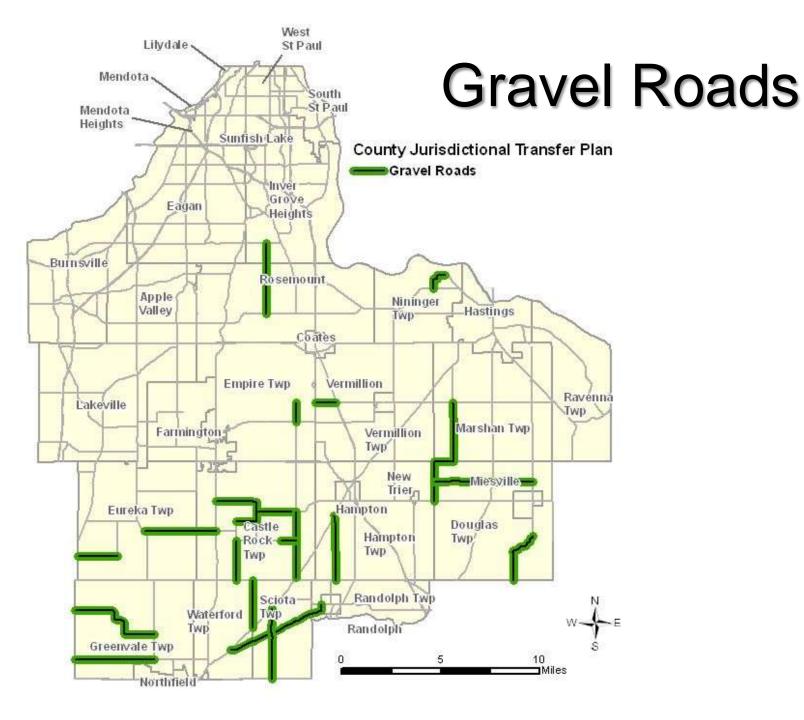
Proposed Performance Measures
 Keep 95% of Roads Fair (2.8) or Better
 Keep 90% of Roads Good (3.1) or Better



Investments Since Last Plan

- Gravel Resurfacing
 - 68 miles Resurfaced with Crushed Lime rock and Chloride (2004-2007)
 - Reduction in Annual Maintenance, and Higher Traffic Volume Threshold (up to 500 ADT?)





Preservation Investments (Per Year)

TOTAL Average Yearly Preservation Investment Needs

	2004	2005-2009	Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Bituminous	3.0	3.3	3.0	*	*
Gravel	0.4	0.5	0.2	0.2	0.2
Pvmt Markings	0.2	0.3	0.3	0.3	0.3
Bike Trails	0.1	0.1	0.2	0.3	0.4
Other	0.0	0.0	to be determined based on policy items		
Totals	3.7	4.2	3.7	0.8	0.9

^{*} To be determined based on PQI assessment later in 2010.

CR Preservation Investments (Per Year)

County Road

Average Yearly Preservation Investment Needs

	2004	2005-2009	County Road Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Bituminous	3.0	3.3	0.8	*	*
Gravel	0.4	0.5	0.2	0.2	0.2
Pvmt Markings	0.2	0.3	0.1	0.1	0.1
Bike Trails	0.1	0.1	0.1	0.1	0.1
Other	0.0	0.0	to be determined based on policy items		
Totals	3.7	4.2	1.2	0.4	0.4

^{*} To be determined based on PQI assessment later in 2010.

Policy Items To Address (Next Workshop)

- Maintenance responsibilities
 - Mowing
 - Storm Sewer & Ponding
 - Bike Trails
 - Mn/DOT-County intersections



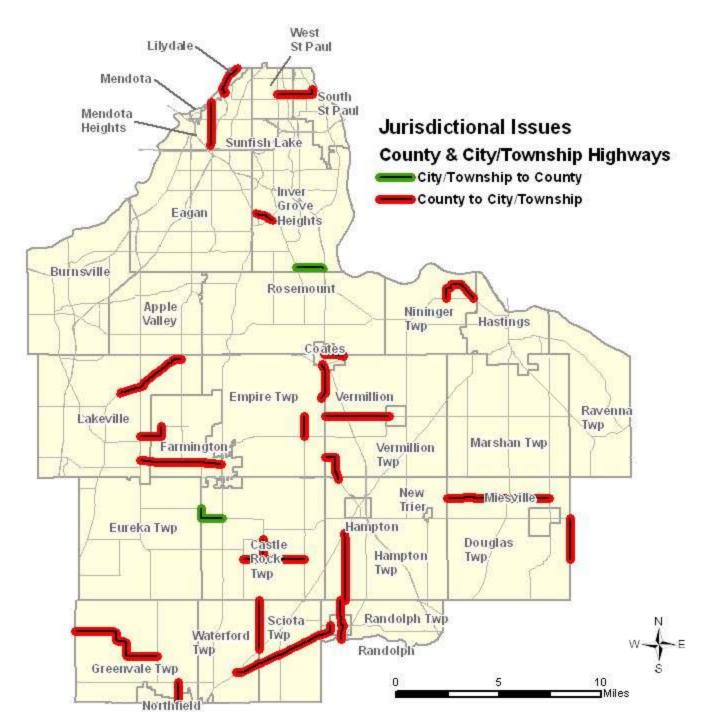


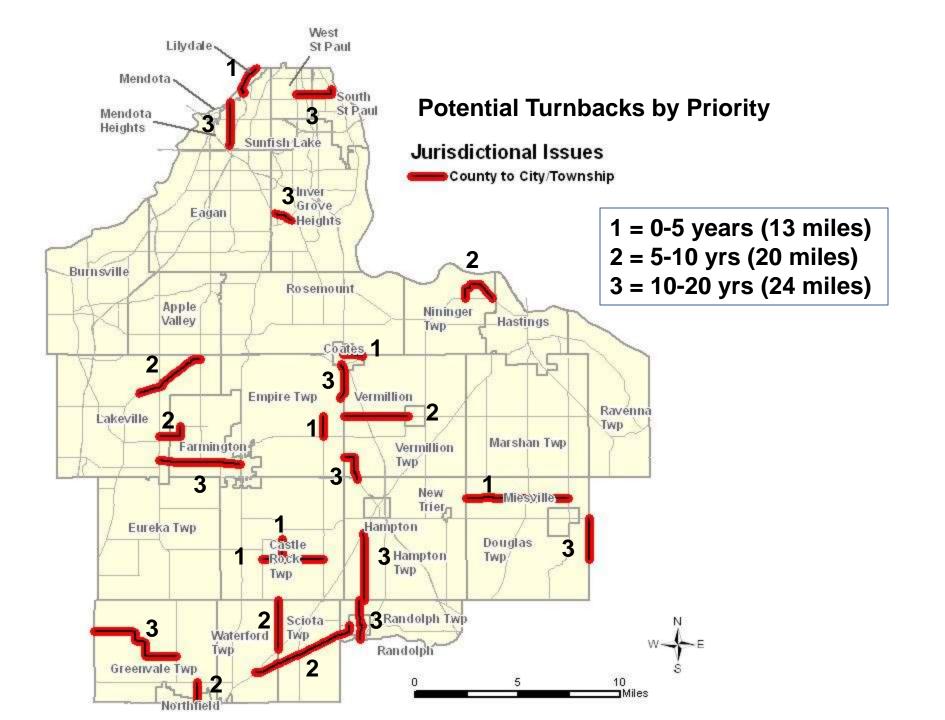


2005-2009 Projects by Goal

Investments Since Last Plan

- 10 New Signals, 13 Revised
- 15 Safety Improvements
- 7 Miles of Turnbacks
- Roundabouts on County System
 - CSAH 30 & Rahn
 - TH 3 & Future CR 64
 - TH 3 & Future CR 28
 - TH 52 & CSAH/CR 8







Jurisdictional Transfer Options

- Identify Turnbacks, but do not plan to invest any money toward Turnbacks in the Plan.
- Address Turnbacks by Priority (0-5 years, 5-10, 10-20)
 (STAFF RECOMMENDED APPROACH)
- Complete all Turnbacks within 10 years
- Turn Principal Arterials Up to MnDOT?

Turnbacks - Recommended Scenario*

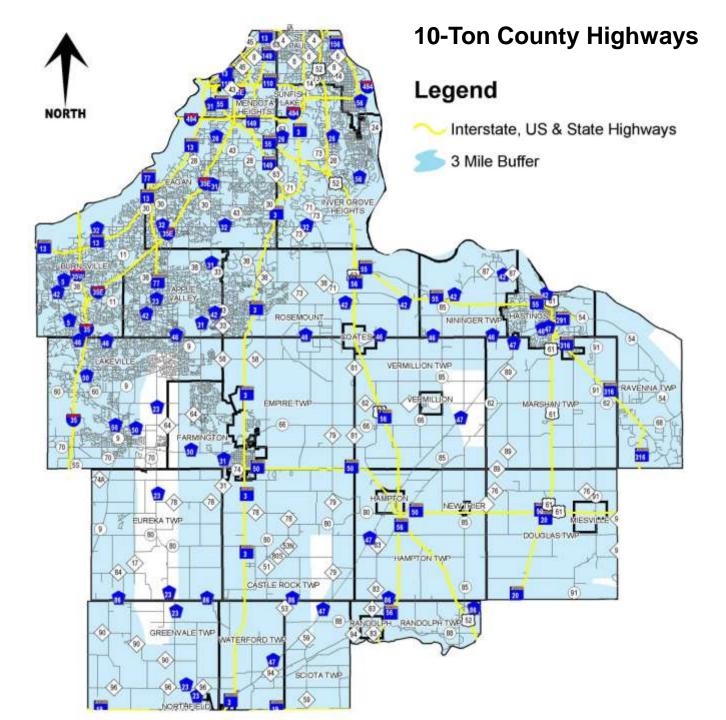
		Miles (total)			Cost (per yr)		
		2011-2015	2016-2020	2021-2030	2011-2015	2016-2020	2021-2030
	Gravel	8.1	8.8	8.4	0.1	0.1	0.0
	Bit	5.4	11.2	16.6	0.2	0.5	0.4
I	Total	13.5	20.0	25.0	0.3	0.6	0.4

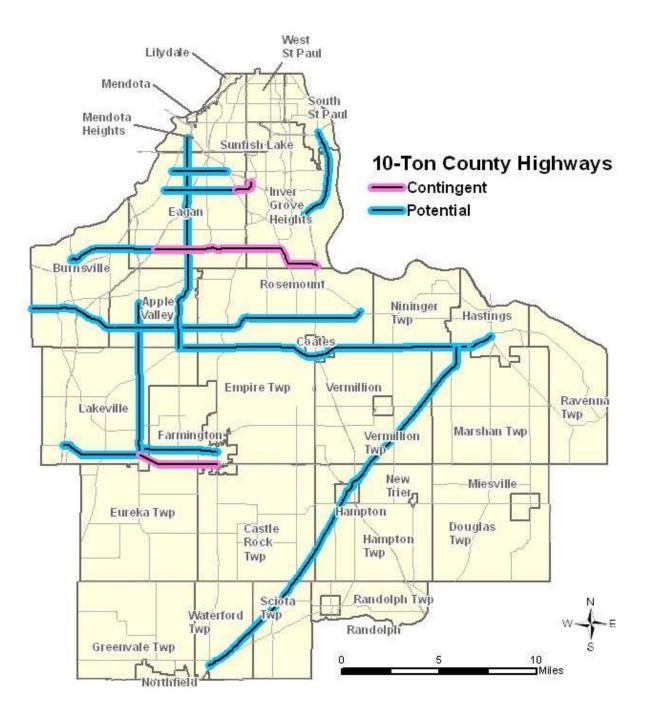
Turnbacks - Aggressive Scenario**

	Miles (total)			Cost (per yr)		
	2011-2015	2016-2020	2021-2030	2011-2015	2016-2020	2021-2030
Gravel	12.7	12.7	0.0	0.1	0.1	0.0
Bit	16.6	16.6	0.0	0.8	0.8	0.0
Total	29.3	29.3	0.0	0.9	0.9	0.0

^{**} Assumes all turnbacks completed within 10 years.

^{*} Assumes turnbacks completed by priority over 20 years.





Policy Items To Address (Next Workshop)

- Local Network Cost Participation
- Roundabout Cost Participation
- Access Spacing Guidelines Distinctions
 - Rural High Speed Roadways
 - Urban/Low Speed Roadways
- Small Safety/Management Project Cost Share –
 100% County

Management Investments (Per Year)

TOTAL Average Yearly Management Investment Needs

	2004	2005-2009	Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Access Mgmt	2.7	1.7	-	-	-
Jurisdictional Class.	0.3	0.5	0.3*	0.6*	0.4*
Safety & Mgmt	1.0	3.6	5.5**	5.5**	5.5**
Signal Projects	1.0	1.0	1.0	0.7	0.7
R/W Preservation	1.0	1.0	1.0	1.0	1.0
Transit Infrastructure	-	0.1	0.1	0.1	0.2
Totals	6.0	7.9	7.9	7.9	7.8

^{*} Assumes staff recommended approach to turnbacks.

Note: 10 Ton system implementation assumed at no cost.

^{**} Includes combination of Safety&Management AND Access Management.

CR Management Investments (Per Year)

County Road

Average Yearly Management Investment Needs

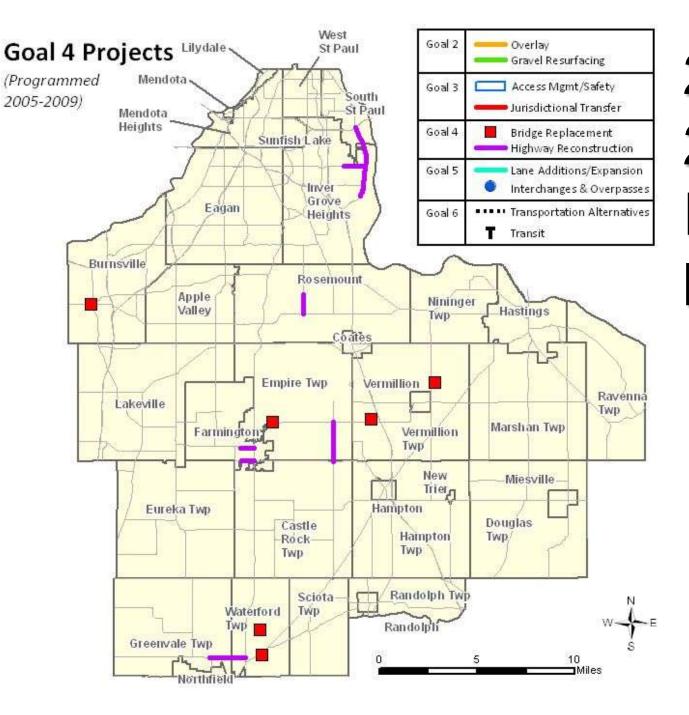
	2004	2005-2009	Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Access Mgmt	2.7	1.7	-	-	-
Jurisdictional Class.	0.3	0.5	0.3*	0.6*	0.4*
Safety & Mgmt	1.0	3.6	1.4**	1.4**	1.4**
Signal Projects	1.0	1.0	0.0	0.0	0.0
R/W Preservation	1.0	1.0	0.3	0.3	0.3
Transit Infrastructure	-	0.1	0.0	0.0	0.0
Totals	6.0	7.9	2.0	2.3	2.1

^{*} Assumes staff recommended approach to turnbacks.

Note: 10 Ton system implementation assumed at no cost.

^{**} Includes combination of Safety&Management AND Access Management.





2005-2009 Projects by Goal

Investments Since Last Plan

- 4 Township Bridges Replaced
- 7 Miles of Highway Reconstruction
 - \$50M of State Turnback Funds Received for CSAH 56 and CSAH 50
- 6 Miles of Gravel Road Paved

Bridges

- Age
- Sufficiency rating less than 80
- Structural deficient
- Functionally obsolete

Signals

Age & Condition

Highway Reconstruction

- Exceeded useful life, based on structural, operational of functional adequacy
- Life cycle cost consideration

Gravel Road Improvement

 Consider reconstruction/paving when ADT is greater than 300

<u>Bridges</u>

- 60 years & older as future needs
- Bridge sufficiency ratings vs. bridge age
- 2 Bridges currently functionally obsolete
- \$75 k/yr from state

Bridge Replacement Cost

	Estimated Cost		#	Estimated Cost	#
Bridge Age		CSAH	CSAH	CR	CR
0-10 yrs	\$	6,410,711	12	\$ 3,558,367	9
11-20 yrs	\$	5,354,066	13	\$ 1,461,282	7
21-30 yrs	\$	564,480	3	\$ 378,123	1
31-40 yrs	\$	1,341,456	6	\$ 947,525	2
41-50 yrs	\$	1,512,485	10	\$ 91,793	1
51-60 yrs	\$	136,971	3	\$ 103,000	2
61-70 yrs	\$	338,926	7	\$ 16,000	1
71-80 yrs	\$	675,843	5	\$ -	0
81-90 yrs	\$	-	0	\$ 144,118	1
91-100 yrs	\$	-	0	\$ -	0
> 100 yrs	\$	-	0	\$ -	0
	\$	16,334,938	59	\$ 6,700,208	24

GRAVEL HIGHWAY REPLACEMENT OPTIONS

(2011-2030)

Pave All			
	Miles	Total Cost	Annual Cost
CSAH	7.0	\$10.6	\$0.5
CR	35.3	\$53.7	\$2.7
Turnback	25.2	\$38.3	\$1.9
Total	67.5	\$102.6	\$5.1

Replace at 300+ ADT (Current Policy)						
	Miles	Total Cost	Annual Cost			
CSAH	4.5	\$6.8	•			
CR	15.6	\$23.7				
Turnback	2.0	\$3.0	\$0.2			
Total	22.1	\$33.6	\$1.7			

Replace at 500+ ADT							
	Miles	Total Cost	Annual Cost				
CSAH	2.0	\$3.0	\$0.2				
CR	4.5	\$6.8	\$0.3				
Turnback	0.0	\$0.0	\$0.0				
Total	6.5	\$9.9	\$0.5				

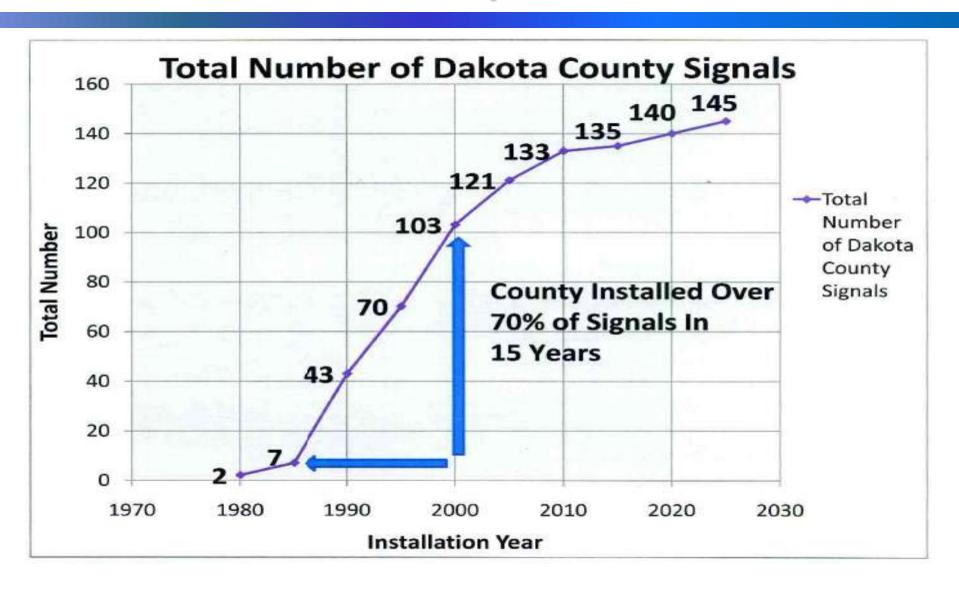
Goal 4: Replacement

HIGHWAY REPLACEMENT INVESTMENT NEEDS*

	Miles (total)			C	Cost (per yr)	
	2011-2015	2016-2020	2021-2030	2011-2015	2016-2020	2021-2030
CR	46.8	19.5	12.1	\$15.3	\$5.9	\$2.7
CSAH	66.5	19.4	42.8	\$22.4	\$6.8	\$19.2
Total	118.3	43.1	104.3	\$37.8	\$12.8	\$21.9

^{*} Assumes reconstruction of road segments at 60 years of age at \$1.5M/mile. More analysis is required to assess the safety and structure of individual roadway segments to better determine actual replacement needs.

Goal 4: Replacement



Replacement Investments (Per Year)

TOTAL

Average Yearly Replacement Investment Needs

	2004	2005-2009	Future Needs		}
Activity	Plan	CIP	2011-2015 2016-2020 2021-		2021-2030
Bridge	0.8	0.0	0.3*	0.1*	0.3*
Highway Recon.	2.4	12.5	More Analysis Required**		
Gravel Paving***	1.0	2.0	1.3	1.5	1.7
Signal Projects	-	0.0	0.2	1.5	1.4
Totals	4.2	14.5	1.8	3.1	3.4

^{*} Based on Bridge ages. Replacement costs will also depend on Sufficiency Rating.

^{**} Additional safety and structural analysis to be completed

^{***} Assumes reconstruction and paving at 300+ ADT

CR Replacement Investments (Per Year)

County Road

Average Yearly Replacement Investment Needs

_		•				
	2004	2005-2009	Future Needs			
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030	
Bridge	8.0	0.0	0.2*	0.0*	0.1*	
Highway Recon.	2.4	12.5	More Analysis Required**			
Gravel Paving***	1.0	2.0	1.0	1.2	1.4	
Signal Projects	-	0.0	0.0	0.0	0.0	
Totals	4.2	14.5	1.2	1.2	1.5	

^{*} Based on Bridge ages. Replacement costs will also depend on Sufficiency Rating.

^{**} Additional safety and structural analysis to be completed

^{***} Assumes reconstruction and paving at 300+ ADT

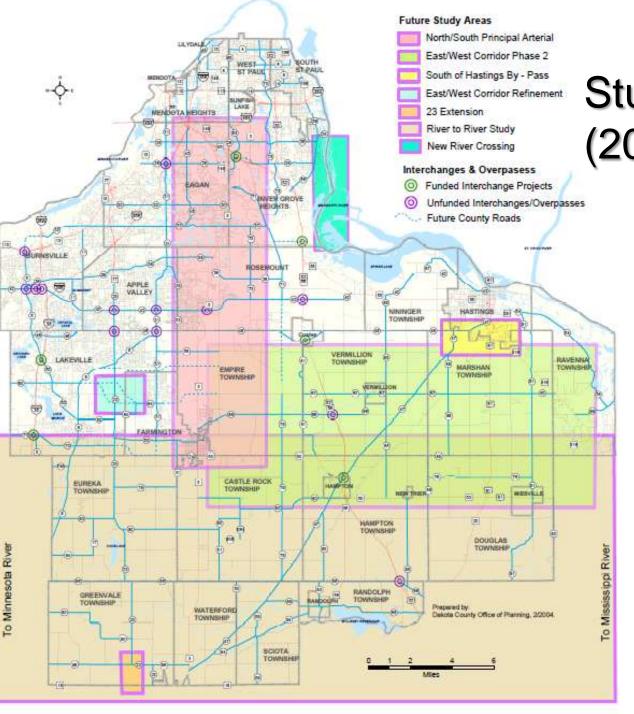




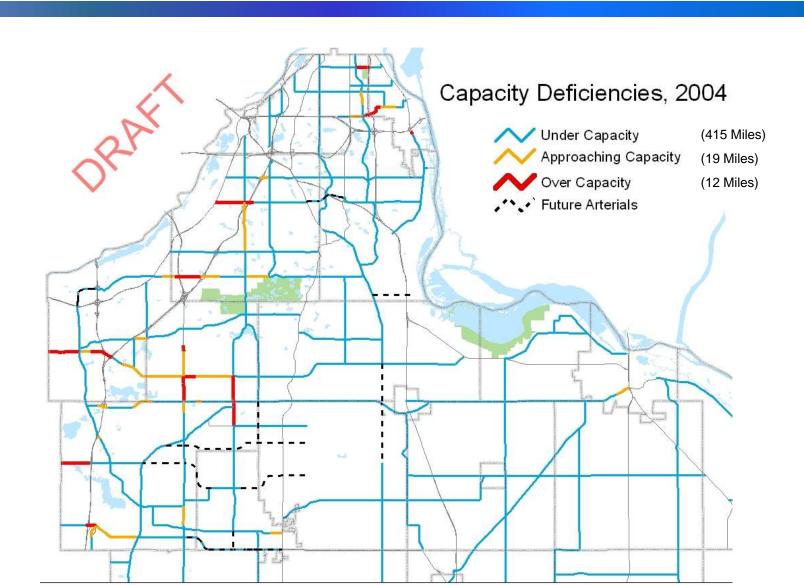
2005-2009 Projects by Goal

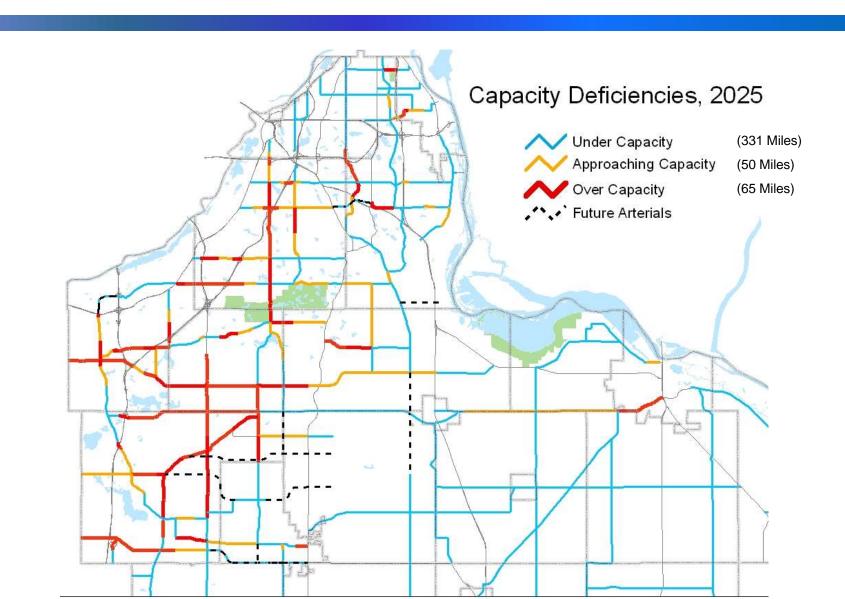
Investments Since Last Plan

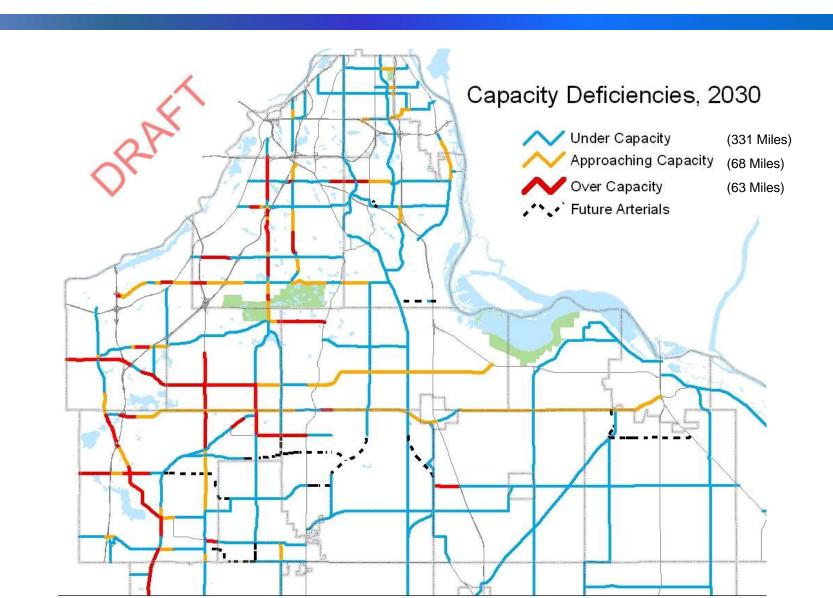
- 7 studies
- 20.2 Highway lane miles added
- 5 Interchanges and overpasses
- Future connections (CR 28, 195th Street)
- CIP investments \$21.5M/year compared to \$14.3M/year anticipated



Study Needs (2004 Plan)







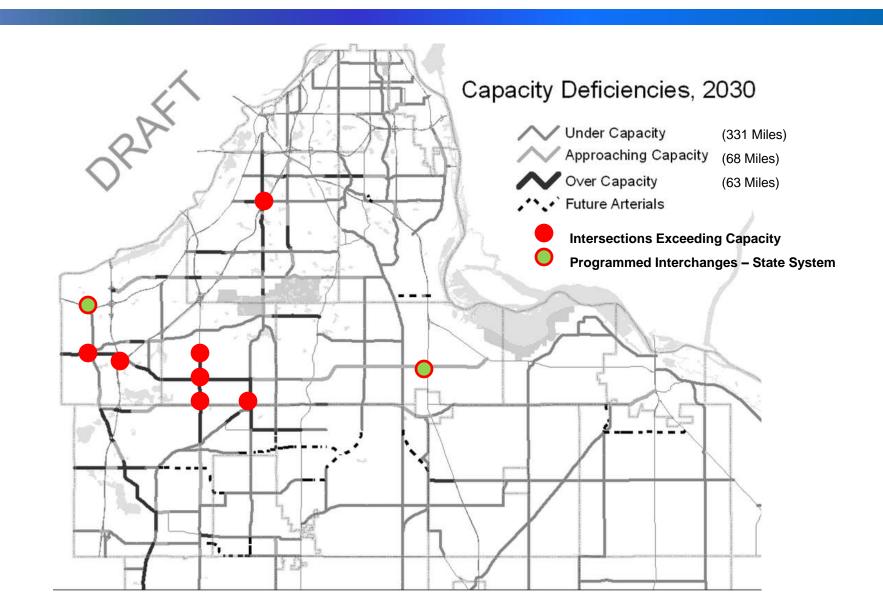
Intersections Exceeding 75,000 ADT in 2030

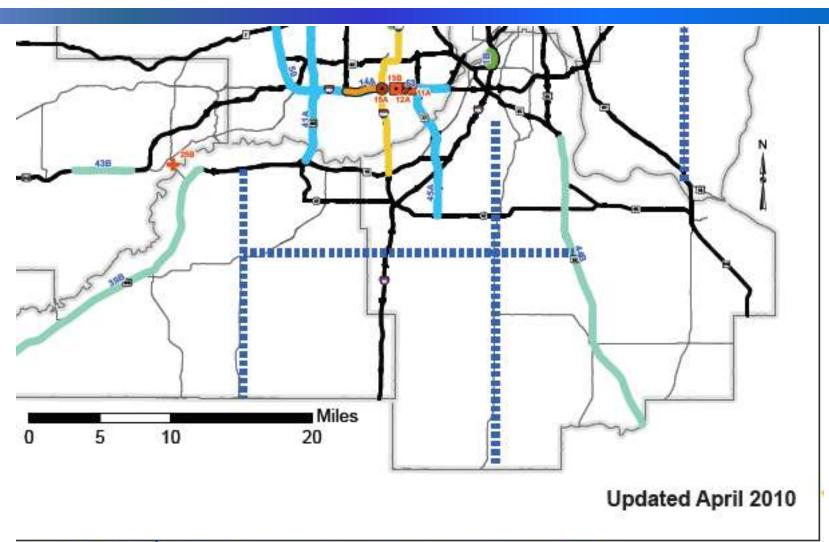
Intersection	2030 ADT	Cost (millions)
CSAH 23 & CSAH 42	105,000	\$25
CSAH 23 & 140th Street	88,000	\$25
CSAH 31 & CSAH 28	82,000	*
CSAH 23 & CSAH 46	79,000	\$25
CSAH 42 & CSAH 5	77,000	\$25
CSAH 42 & Nicollet Avenue	76,000	*
CSAH 31 & CSAH 46	75,000	\$25
Total		\$125

^{*} Installation of an interchange is highly unlikely.

Intersections Approaching 75,000 ADT in 2030

Intersection	2030 ADT
TH 55 & CSAH 26	74,000
CSAH 31 & CSAH 42	70,000
TH 13 & CSAH 32	62,000
CSAH 43 & CSAH 28	60,000





Future Study Needs

- Principal Arterials (North/South & East/West)
- Connection between UMORE & RRSVS
- TH 52 Interchanges (CSAH 66, CSAH 86)
- 117th Street

New Mississippi River Crossing – 2030 Modeling Results

Location	2030 Traffic Volume WITHOUT New Crossing	2030 Traffic Volume WITH New Crossing	Difference
I-494 (Wakota)	170,000	152,000	-18,000
New Crossing	0	33,000	33,000
TH 61 (Hastings)	38,000	35,000	-3,000
Total	208,000	220,000	12,000*

^{*} A new crossing therefore would replace 21,000 trips from existing crossings, while adding 12,000 new river crossing trips to the system.

^{*} Rough estimate of river crossing of \$75 million based on \$50 million cost of Wakota Bridge and extensive roadwork.

Expansion Investments (Per Year)

TOTAL Average Yearly Expansion Investment Needs

	2004	2005-2009	Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Lane Addition	8.0	10.5	7.1	13.8	32.1
New Alignments	6.0	3.1	0.7	0.8	0.9
Future Studies	0.3	0.5	0.5	0.5	0.5
Interchanges	0.0	7.4	8.0	9.0	12.5
Totals	14.3	21.5	16.3	22.8	44.6

CR Expansion Investments (Per Year)

County Roads

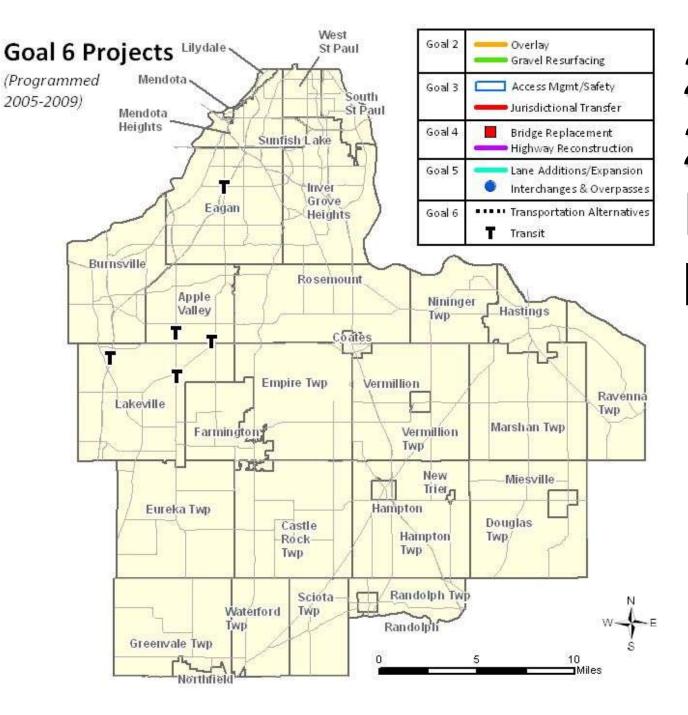
Average Yearly Expansion Investment Needs

	2004	2005-2009	Future Needs		
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Lane Addition	8.0	10.5	0.0	0.0	1.2
New Alignments	6.0	3.1	0.7	0.8	0.9
Future Studies	0.3	0.5	0.5	0.5	0.5
Interchanges	0.0	7.4	0.0	0.0	0.0
Totals	14.3	21.5	1.2	1.3	2.6

Policy Items To Address (Next Workshop)

- Interchange Right-of-Way Preservation
- Cost Participation for more "Regional" roadways and interchanges
- Coordination and Cost Sharing with Developers and Cities on New Alignments



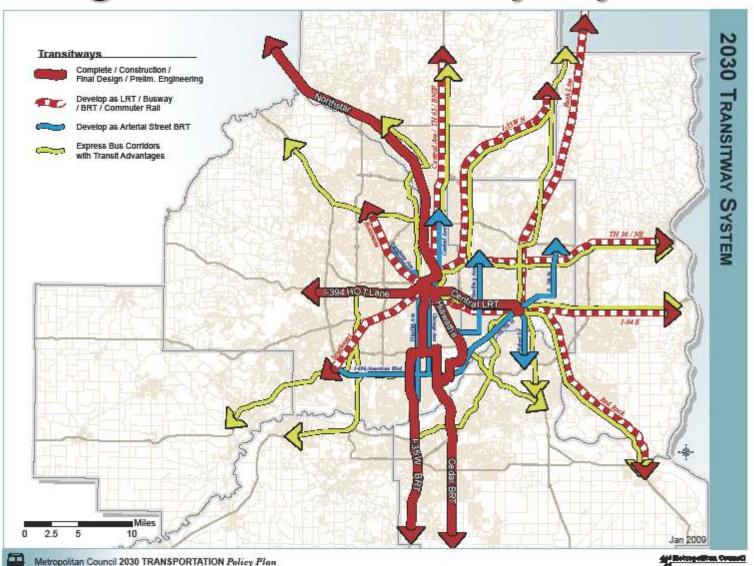


2005-2009 Projects by Goal

Changes / Accomplishments Since Last Plan

- Transit Plan adopted
- Transit Office established
- Park and Ride Investments
 - 157th Street Station
 - Cedar Grove, Lakeville, Apple Valley Park (UPA)
 - I-35W Lakeville
- Lakeville in Transit Taxing District
- Cedar Avenue BRT Implementation
- Counties Transit Investment Board Formation
 - Eligible projects under way / study: Cedar Avenue BRT, I-35W BRT, Robert
 Street Transitway, Red Rock Commuter Rail

Regional Transitway System



Funding Needs for Transitways

CTIB Participation up to 30 Percent

- Cedar Avenue BRT = \$250 million (total project cost)
- Robert Street Transitway Corridor = \$110 million to \$1.1 billion (total project cost)
- I-35W BRT = \$93.3 million (total project cost)
- Red Rock Corridor = \$660 million to \$700 million (total project cost)

Transit Plan Goals for 2011-2015

- Implement Cedar Avenue BRT, Phase I and early Phase II
- Complete Robert Street AA and Implementation Plan.
 Coordinate early investments with West St. Paul project.
- Promote multimodal connections
- Provide appropriate transit infrastructure with highways projects
- Explore and implement feasible commuter programs
- Remove physical barriers that impede pedestrian and bike access to transit

Policy Items To Address (Next Workshop)

- How to Integrate Goal in Plan Update
- Transit Link Implementation
- Cost Share Policies
 - Transitways: streetscaping / landscaping
 - Bike Trail maintenance / replacement
- Regional Transitways/County Transit Corridors
 - Complete Streets philosophy
 - Signal priority, bus pull-outs, transit enhancements, transit oriented development
 - Transitway and high speed rail development

Public & Agency Involvement

Activity	Future	Past
Website	Under Development	
Newsletter	Quarterly (as needed)	
Workgroups	Monthly (as needed)	Several times
MnDOT /Met Counc	il Spring '10 & Fall '10	
CONDAC Updates	Monthly	Several times
PDC Updates	Quarterly	January 2010
Planning Commissio	n Quarterly (as needed)	October 2009
Public Open House	July/August	
Board Workshop	August/September	May 2010
Public Comment	Fall	

Schedule

January 2010 – PDC Update

May 2010 – County Board Workshop

Summer 2010 – Meet with external agencies and groups, develop draft policy and strategy revisions

July/Aug 2010 – Public open house/presentation to share findings and gather input

Aug/Sept 2010 – Second County Board workshop, start final document draft

Fall 2010 – Final recommendations, public comment period and agency review

Nov/Dec 2010 – Board approval, Met council approval and Plan adoption

Total CIP Investments

TOTAL Average Yearly CIP Investment Needs

	2004	2005-2009	Future Needs		S
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Goal 1 - Resources	-	-	-	-	1
Goal 2 - Preservation	3.8	4.2	3.7	0.8	0.9
Goal 3 - Management	7.0	7.8	7.9	7.9	7.8
Goal 4 - Replacement	4.2	14.5	More Analysis Required		equired
Goal 5 - Expansion	14.3	21.5	16.3	22.8	44.6
Goal 6 - Alternatives	0.9	-	'	•	•
Totals	14.3	21.5	20.1	31.5	45.2

CR Total CIP Investments

County Roads

Average Yearly CIP Investment Needs

<u> </u>					
	2004	2005-2009	F	uture Need	s
Activity	Plan	CIP	2011-2015	2016-2020	2021-2030
Goal 1 - Resources	-	-	-	-	-
Goal 2 - Preservation	3.8	4.2	1.2	0.4	0.4
Goal 3 - Management	7.0	7.8	2.0	2.3	2.1
Goal 4 - Replacement	4.2	14.5	More A	Analysis Re	equired
Goal 5 - Expansion	14.3	21.5	1.2	1.3	2.6
Goal 6 - Alternatives	0.9	-		'	•
Totals	14.3	21.5	4.4	4.0	5.1

Transportation Plan – Key Considerations

- Aging System: Higher Needs for Preservation and Replacement
- System Congestion Held Steady with Expansion Investments and for Short Term Future
- Overall System Better Now than 2004
- Increasing Role of Alternative Modes
- Expected Revenue Changes
 - County Funding Reduction, Focus on CR System
 - CSAH Funding Increases



Discussion